



Volume 29, Number 2

# inps journal

Indiana Native Plant Society

Summer 2022

## Keep Indianapolis Beautiful: Considering Race and Equity in Environmental Work

### *By Keep Indianapolis Beautiful*

Keep Indianapolis Beautiful (KIB) helps people and nature to thrive through the creation of vibrant public places. In a typical year (pre-COVID-19), this urban nonprofit supports nearly 850 community improvement projects with about 10,000 volunteers. KIB partners with Indianapolis neighborhoods, the public sector, community groups, and businesses to make our city more beautiful and more livable. We engage them in litter cleanup, tree planting, habitat restoration, public art, and the creation of green spaces. Educational programming and youth employment enhance these efforts.

To be sure, our numbers are impressive. In 2021 alone, despite COVID fears, KIB employed

through invasive removal and native plantings – we planted 2,943 native plants and 3,441 trees! There is no way KIB staff could do this alone; volunteers contributed 18,000 hours of service to this herculean effort.



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But KIB is more than numbers. The true challenge of our work is not how many, but choosing where to work and with whom. It involves building relationships that ensure the work we do lasts and has the greatest impact. What we as an organization have come to understand over our 45-year history is the complex, and sometimes fraught, interactions between society and the environment it lives within. For KIB to succeed in our mission and in our urban context, we need to be planting in the right area, with the right partners, and in an equitable way.

Never was this challenge more on the mind of the staff and board than when KIB began developing our 2021-2024 strategic plan; the murders of George Floyd, Breonna Taylor, and so many others prompted our team to recommit to anti-racism work internally and in the community. Nearly every single staff and board member

*KIB — continued on page 2*



*Volunteers planting trees with KIB.*

36 youth and kept nearly 1000 blocks clear of litter. Would you believe that we corralled over half a million pounds of trash? Our team helped restore and manage 29 acres (12 ha) of habitat

## KIB — continued from front page



Photos courtesy of Keep Indianapolis Beautiful

Volunteers hard at work with KIB.

had a hand in writing what began as a public statement and quickly turned into a guiding charter for how KIB wants to move forward and hold ourselves accountable in this work. This charter has the following goals:

- External goal: To strengthen our ties with diverse neighborhoods, communities, vendors, and partners.
- Engage in open dialogue with civic and social justice organizations and with neighborhood advocates in town hall meetings to identify environmental justice issues in underserved communities.
- Examine historical data to provide an objective and honest picture of the communities where KIB has invested its resources.
- Allocate future resources where they are most needed and welcomed to create safe and healthy neighborhoods for all, and more equitable access to a healthy environment.
- Review our existing use of minority-owned vendors, and their subcontractors. We will set a goal of matching or exceeding the

diversity of the city with our vendors.

- Ensure that all participants feel safe and welcomed at KIB projects and events, and in the neighborhoods where we work.

Internal Goal: To foster a diverse, equitable, and inclusive workplace, where all staff feel safe and welcome.

- Seek expertise outside our own staff to audit and recalibrate our culture and sensitivity to race, diversity, equity, and inclusion in our daily operations.
- Recommit to staff hiring practices and board nominations that increase diverse representation.
- Ensure that all staff and board members engage in anti-racism training and commit to ongoing development.

Using this charter as a guiding document, KIB staff and board identified environmental equity as the primary driver for the (then) new strategic plan. By environmental equity, KIB means *protection from environmental hazards as well as access to environmental benefits, regardless of income, race, and other characteristics*. Using this definition and critical community feedback, an internal writing team has developed broad goals for KIB. These include increasing the inclusiveness of decision-making and advancing equity through improved environmental access, while maintaining KIB's financial stability.

What does that all mean? For some, lenses such as race and class are not clearly relevant to environmental work. There is a notion that planting a native flower is a simple, clear moral good that does not need to be complicated. But over KIB's 45-year history of working throughout the city, we have realized just the opposite. If you look at the neighborhoods in Indianapolis – and indeed throughout the country – where there is low tree canopy, poor access to vibrant green spaces, or harmful exposure to chemicals, there is an insidious reason hidden in our not-so-distant past. That reason is racism and more specifically, redlining.

Redlining is a discriminatory practice wherein loans were withheld from residents of predominantly non-white communities. While it legally ended in Indianapolis in 1968, “decades of disinvestment and even the health effects caused

# Restoring Natives One Garden at a Time

by the practice are still entrenched in the fabric of the city" the Indy Star reports.

In response, KIB launched its Key Neighborhood Identification Tool (KNIT) in 2021, a map that serves as a critical framework for identifying neighborhoods throughout the city where our resources can have the greatest impact. To be both equitable and strategic, this tool has four key components:

- A Social Vulnerability Index using data derived from the Thrive Indianapolis Plan
- Percent Canopy Coverage from our 2013 LiDAR dataset: <https://pg-cloud.com/KIB/>
- Concentrations of litter and illegal dumping complaints based upon data from the Mayor's Action Center
- KIB Program Score, a measure of the concentration of past KIB efforts

Race and income census data for each tract also were included in the KNIT web map. KIB staff used the KNIT map to prioritize areas for future engagement efforts over the next four years. As a counter to the historic redlined maps, areas with the most need get the most investment. The ten census tracts with the highest KNIT scores are now considered KIB's Focus Areas. The result, we hope, is to steer our programs towards the people that need them most.

KIB is distinctly an urban organization, where issues of race and class are more obviously entwined with our programs. We urge all environmental organizations, however, to consider how societal and historical issues affect and hinder the impact of their programs. Surely nobody could deny that for those of us working in the environment, we need all the support and allies we can find!

## Web Resources

Urban tree canopy - <https://www.nature.com/articles/s42949-021-00022-0>

Lingering effects of redlining - <https://www.npr.org/sections/health-shots/2020/11/19/911909187/in-u-s-cities-the-health-effects-of-past-housing-discrimination-are-plain-to-see>

<https://www.washingtonpost.com/climate-environment/2022/03/09/redlining-pollution-environmental-justice/>

<https://www.indystar.com/in-depth/news/environment/2020/05/02/redlined-indianapolis-areas-still-see-poverty-poor-health/3017810001/>



## Start saving now!

From 2017 to 2019, the native plant seed swap was a popular attraction at the INPS Annual Conference. Each year, society members collected, cleaned, and donated seeds from native plants in their care. At the swap, members selected from as many as 60 species of native seeds to take home and plant.

With the resumption of in-person conferences, exchanging home-grown native plant seeds is again possible and we shall hold a seed swap at the 2022 INPS Annual Conference. This year, Mark Sheehan, the seed swap coordinator, has teamed with Bill Daniels, the coordinator of the INPS Native Seed Communities initiative, to ensure that support resources are available for seed swap participants who may need them.

As in past years, we encourage Indiana native plant gardeners to look ahead to the fall seed swap and to harvest seed from their plantings. Those seeds, cleaned and placed into labeled, wide-mouth containers, should be delivered to the seed swap area at the opening of this fall's annual conference, Saturday, October 22. Contributors will receive credentials allowing them exclusive mid-morning access to the donated seeds; access for other conference participants will be allowed later in the day.

Further details are available in the right-hand column of the INPS web page, Growing Native Plants from Seeds: <https://indiananativeplants.org/growing-native-plants-from-seed/>

Please keep the 2022 seed swap in mind as you tend your native plant gardens this summer. Making native plants a part of every Hoosier landscape is a worthy and achievable goal. Distributing free seeds through the INPS seed swap can make a powerful contribution toward that goal!



*Beardtongue  
(Penstemon digitalis)  
seeds germinated  
readily after cold  
stratification.*

# The Experience of Commonness

## By Lee Casebere

Last year I finally read a book that had been on my “books-to-read-someday” list for several years. *The Thunder Tree: Lessons from an Urban Wildland*, by Robert Michael Pyle (Pyle 2011), is largely an autobiographical account of its biologist author. His formative years, like mine, were in the shortly-after-WW II era that was a simpler, pre-internet time when many parents allowed their kids to roam widely and create their own carefree ways of passing the days.



Paul Rothrock

An example of a “ditch” in Plainfield, Indiana seen in autumn. It has a relocated stream channel and a diversity of common, mostly native species such as sycamore (*Platanus occidentalis*), rough dogwood (*Cornus drummondii*), and goldenrod (*Solidago* sp.) Unfortunately the area shows no signs of youthful adventures.

For Bob Pyle and his older brother Tom, much of their lives revolved around what he referred to as a ditch. Pyle uses the word ditch metaphorically when saying that many people that he’s talked to through the years had a “ditch” somewhere in their youth that they hold in high regard, be it a creek, meadow, woodlot, or marsh. Their ditch was the High Line Canal, a century-old waterway that had been constructed to carry water from the Colorado mountains eastward to irrigate farmlands on the western edge of the Great Plains. It was more curvy and more heavily vegetated than the straight, well-manicured ditches of my youth in the thoroughly drained farmlands of northwestern Ohio. That said, the semi-wild places of my youth were many and varied, and there was no shortage of places to capture my interest.

The Pyle’s High Line Canal was certainly

not a remnant natural area, and neither were most of the places I had available to me. But one thing they provided in abundance were hands-on experiences. There were any number of creatures and plants to learn about, from frogs and their tadpoles to relationships such as the one between milkweeds (*Asclepias* spp.) and monarch butterflies (*Danaus plexippus*). You learned the hard way how to identify poison ivy (*Toxicodendron radicans*) and avoid plants with thorns and briars. These were places to climb trees, build forts, create water diversions, catch fish and in the process get muddy, skin your knees, get tired, and best of all, bond with a place.

One of the nice things about semi-natural places like the High Line Canal is that you can do some noticeable wear and tear and not cause irreparable damage to the land or the things that live there. In the natural area preservation and management arena where I spent my career, we actively discouraged off-trail usage and the collecting of plants and animals. You don’t want people creating rogue trails, causing erosion and digging up plants and capturing animals to take home for their landscaping or to become pets or to be part of black-market enterprise in endangered species.

Restrictive policies are appropriate for high quality nature preserves. However, I also firmly believe that both children and adults need places where they can have hands-on experiences with nature, whether it’s netting minnows in a local creek or helping a local land trust plant trees in an old field. There needs to be places for hands-on, intrusive activities without getting into trouble for breaking the rules. Many parks and nature centers have educational programs that result in wet clothes and dirty hands and feet. Such exposures to nature are important for building meaningful understandings of ecological relationships and for driving home the point that we are one with nature, not apart from it. Such activities plant the seeds of knowing, from which grow lifelong bonds of inspiration, reverence, and caring for the Earth. And, with children these days less inclined to unplug from their online devices and spend time outdoors, the more places that encourage them to immerse into hands-on outdoor experiences, so much the better.



# in Nature – Are We Losing It?

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One of the chapters in *The Thunder Tree* is The Extinction of Experience. In it, Pyle explains that natural lands and the organisms that live there are steadily decreasing due to human-caused destruction. That loss includes lands that are just somewhat natural like High Line Canal all the way up to high quality remnant natural areas. He points out that even common plants and animals are disappearing from our spheres of accessibility. In most circumstances our journeys into nature begin with common species, not the rarer ones. And for those among us with limited mobility due to youth, disability, or low financial means, the losses of common species mean that they might as well be entirely gone since they become unavailable for firsthand exploration. He further explains that local extinctions here and there become regional in scope over time and can lead to complete extinctions if they continue unabated. I'd be willing to bet that each one of you knows of a once familiar nature place that no longer exists.

To give this topic a current, local connection I want to tie the message about the loss of common organisms into email discussions that took place last summer related to the INPS Native Plant of the Year. Once the decision was made to select a plant of the year, members of the INPS Council were asked to submit nominations. The first few responses included suggestions that ranged from common, widespread species to rarer ones seldom seen by the average wildflower enthusiast. There had been no guidance given as to what kinds of plants INPS was seeking to represent the plant of the year. Should it be herbaceous or woody, beautiful or plain, common or rare?

One of the first suggestions was for puttyroot (*Aplectrum hyemale*), one of our most common native orchids. Common is a relative term, though, and despite being a common orchid and found statewide, few people ever see it, particularly when flowering. Most frequently seen is the winter leaf when other plants are still dormant. But still, it possesses that sexy orchid allure! Surely that counts for something, right? But a few folks on the council expressed particular interest in choosing from among our most common wildflowers.

Council member Dawn Slack wrote a compelling argument and it's precisely the same train of thought as that made by Pyle in *The Extinction of Experience*. She said: "I think overall, in order for us to care for our ecosystems we need to keep common plants common almost as much as we want to keep our rare plants. And I would frankly love for people to simply observe the beauty of our common plants. . . get down on your knees and really take a look with a lens. . . check out the color patterns, the shapes, the smell, etc. Ask why. . . why is it shaped this way and why is this species so common. . . who benefits? Why is it just so darn beautiful?"

Let me conclude with a couple more quotes from *The Thunder Tree* and a simple plea. In the first quote, Pyle laments the reality that so many people nowadays avoid hands-on experiences with nature, and that even those with some interest in natural history often limit their exposure to programs on TV. Of that he says, "... intimate association is necessary. A face-to-face encounter with a banana slug means much more than a Komodo dragon seen on television."

In this last quote he makes a case for appreciating the importance of common species: "... the passing of otherwise common species can be as significant as the total loss of rarities. People who care conserve; people who don't know don't care. What is the extinction of the condor to a child who has never known a wren?"

I end with this plea: If you've not done so already, find yourself a suitable "ditch" and there, get to know a wren!

## Reference

Pyle, R.M. 2011. *The Thunder Tree: Lessons from an Urban Wildland*. Oregon State University Press, Corvallis, OR. First published in 1993 by Houghton Mifflin, Boston, MA.

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*The email quote by Dawn Slack was used with her permission.*

*Lee Casebere, a member of INPS Central Chapter, is a naturalist, ecologist, nature photographer, and retired assistant director of DNR's Division of Nature Preserves. He has spearheaded the INPS Photo Contest and is an occasional contributor to the INPS Journal.*

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# A Hoosier Orchid

## By Wes Homoya

[The spring issue of INPS Journal chronicled the Big Year adventures of the Homoya clan as they sought to see each orchid species native to Indiana in one year. Wes left us hanging at the end of June without assuring us that the goal was reached! So read on and enjoy.]

At the conclusion of Part 1 of our Orchid Big Year, my dad (Mike), mom (Barbara), and I bid adieu to June and its final vernal gasps. Now we prepared to slog our way through July's thick summer air and mosquito-laden woodlands. As a talisman to good fortune, we tossed our younger nephew/grandson Enzo into a hiking pack and slung him on my back (ok, maybe a bit more gently than that). Our ol' reliable friend from Scott County, Brian Lowry, "sherpa-ed" our expedition through the woods once more. Together we witnessed two unassuming yet startlingly evocative *Platanthera* orchids, deep in the Muscatatuck swamps.

Seeking cooler climes (and a paycheck for me), we left the next day for a quick breather in the mountains and meadows of the southern Rockies prior to my monthly eastern Colorado work trip. There'd be no dilly-dallying, however, so the day after I returned, we headed to northeast Indiana and bagged a fine floral triptych – summer coralroot (*Corallorhiza maculata*), small purple fringed orchid (*Platanthera psycodes*), and our first downy rattlesnake-plantain (*Goodyera pubescens*), the latter surely a strong contender for "Best Leaves" award. On what would be our final outing "with child" (little Enzo again braved the skeeters with us), we made a pilgrimage to Fisher Oak Savanna in order to sear our eyes with the flaming

inflorescences of orange fringed orchids (*Platanthera ciliaris*). Such scorching color popping out from the mostly green tints of the understory almost defies belief. Polishing off another successful chapter, our remaining July hunt contained an entomological mimic, the appropriately named crane fly orchid (*Tipularia discolor*), and then like giant candy canes bursting skyward from the soil, crested-coralroot (*Hexalectris spicata*), surely the sexiest of its group.

*Triphora trianthophora*, our first target in August, goes by the common name of three-birds orchid. Why such a moniker, you ask? It was given this title due to its proclivity for having three flowers per plant, though they are often found with anywhere from one to several. Intensifying the peculiarity of this orchid is the mysterious nature of its blooming patterns. Populations of plants, even at a regional scale, frequently exhibit synchronous flowering. One day the ground will be white, the next, it returns to jade, as each individual bloom lasts for but a day. In keeping with the motif, populations average roughly three flushes of blooms per season, and regularly with three days between each "bouquet." Shrouded in myth, theories remind one of morel folklore, with some pointing to the first big rain in August and others to sudden drops in evening temperature as the basis for predicting the earthen explosions. It was with this context and anticipation that we searched for the little birds, and after mistiming it once at a known site, we discovered a massive population at a Central Indiana Land Trust conservation easement in the gorges of Parke County. Breathtaking doesn't begin to do the experience justice. Go see for yourself next summer, if you're up to the challenge!

I must admit now that some trepidation plagues me as we approach



Because of its pale veins, downy rattlesnake-plantain is recognizable by its leaves alone. Other orchids that you may recognize by their leaves include putty-root (*Aplectrum hyemale*) and crane fly orchid.



The orange fringed orchid grows in northern Indiana while the purple fringeless orchid thrives in southern Indiana.

Photos by Paul Rothrock

# Big Year: Part 2

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the conclusion of this novel, as I deem it to be somewhat of an anticlimactic denouement, at least until the very last species. Those familiar with the genus *Spiranthes* (the aforementioned ladies' tresses orchids) know of what I speak. Eight of the final nine orchids belong to it, and as lovely and fascinating as they are, they can be downright maddening. They brim with frustrating taxonomic confusion and hybrid swarms! The only holdout to the white look-alikes, by the way, was the meekly cleistogamous autumn coralroot (*C. odontorhiza*), which we found in our tiny adopted forest plot in Brownsburg. Nevertheless, one by one, our little ivory obstacles fell by the wayside as we marched on, our inertia unstoppable – *romanzoffiana*, *lacera*, *tuberosa*, *cernua*, *ovalis*, *arcisepala*, *magnicamporum* ... and then there was one.

But before we close the story, I'd be remiss if I didn't supply some parting statistics: 28 – days we spent "orchiding" together this year; 23 – counties we explored, exactly a quarter of the 92 composing our great Hoosier state; 11 – property types visited, including nature preserves, fish and wildlife areas, national wildlife refuges, state and national parks, city and county parks, church and school properties, and those owned and managed by land trusts and private citizens; 40 – as mentioned before, the number of native species or varieties of orchids observed. The 40 species does not include the introduced broad-leaved helleborine (*Epipactis helleborine*), although we did go see it at a friend's house, nor does it include one extremely rare species that is known from only one location and did not bloom this year, essentially rendering the species functionally extirpated **for the year**, as far as I'm concerned. And the final and most important stat, >40 – the unbelievably kind community of friends and colleagues that assisted us in some way during our journey, whether with local knowledge, hospitality, historical

information, or fellowship.

Sunset on a warm September day, amid mighty oaks and mossy slopes, over a dozen loved ones gathered to walk the final steps of the marathon with us; such was the setting for *The Last Orchid*. Down in the Brown County hills at TNC's Hitz-Rhodehamel Nature Preserve, we celebrated and capped off a truly once-in-a-lifetime year with some humble yellow ladies' tresses (*S. ochroleuca*) along with a whole lotta smiles and quite possibly a few tears. I may have even taught my parents the recently popularized phrase, "I'm not crying; you're crying."

Speaking of the parental units, words simply fail to convey the breadth of gratitude to them that I have for all the hours spent researching, strategizing, emailing, driving, searching ... but more than anything, I'm forever grateful for their willingness to spend time in the wild with their sometimes wild son. It means more than you'll ever know, Mom and Dad.

So why? Why attempt such a peculiar voyage? Why tell this story? For my part, the answer unequivocally lies in the endless wonders of nature, in the unforgettable memories made with friends and family, and in the hopes that reading this might inspire you, dear reader, to seek and find the same in your lives.

*Wes Homoya, a member of the INPS Central Chapter, is a professional field ornithologist, and leads international birding trips for Natural Selections Tours. He suffers from floral frenzy at the sight of heterotrophic plants as well as orchids.*



Purple fringeless orchid (*Platanthera peramoena*) is the more "plain" cousin of the purple fringed orchid.



White nodding ladies' tresses orchid is one of a half dozen species that blooms in September and October.



# Indiana Native Plant Society

## 2021 Annual Report



Although it seems things didn't get back to "normal" in 2021, INPS did have a very successful year! The continued pandemic limited our ability to have in-person events, so we made the best of the limitations and learned the strength and value of virtual outreach. Thanks to INPS members for rolling with the needed changes, and to the seven regional chapters for finding ways to provide local programming for our members. I'm happy to say that we are planning for a combined in-person/virtual October 22 INPS Annual Conference in Carmel (see elsewhere in the Journal for more details). Keep your fingers crossed that we can meet together then.

—Ellen Jacquart, INPS President

### Celebrating Our Successes

- ❖ INPS garnered nearly **300 new members** in 2021, a 22% increase in membership since 2020 and an 89% increase since 2015.
- ❖ Our first virtual **Native Plant Auction**, under the leadership of Christy Krieg, registered more than 200 bidders and nearly 50 donors of native plants, services, and gift certificates, netting over \$15,000.
- ❖ The **Biodiversity Grants** team awarded a combined total of \$4,581 to Boone County Master Gardener Association, Indiana University South Bend, Red-Tail Land Conservancy, and Sycamore Land Trust to support installation of pollinator and companion gardens and a native plant propagation program.
- ❖ **Letha's Youth Outdoors Fund** awarded \$2,686 in grants to get children out in nature. Recipients included The Stem Connection and Lyhurst Middle School in Indianapolis and Goshen High School in Elkhart County.
- ❖ We provided funds for the **Indiana University**
- Herbarium's Photographic Scavenger Hunt**, designed to engage community scientists and enhance the Plant Identification tool within the MidwestHerbaria.org data portal. As a result, more than 7,000 images were received for use on this website.
- ❖ Our third **Native Plant Photo Contest** awarded prizes in the Plant Portrait and Landscape Scene categories and yielded 79 new homegrown photos for use in INPS outreach.
- ❖ The fourth annual **Florathon** had individuals and family units competing to find the most native plants in flower in a 24-hour period. For the second year the Always Be Botanizing team took first place for the highest species total, with David Mow in second place. More than \$1,000 was raised for Letha's Youth Outdoors Fund.
- ❖ The **Grow Indiana Natives** program certified 82 native gardens, five additional Invasive-Free sellers, and one Invasive-Free designer.
- ❖ Our four-hour **Annual Conference**, held via Zoom, featured speakers Paul Rothrock, Mike Homoya, Scott Namestnik, and Jim McCormac and drew approximately 300 participants.
- ❖ Our **social media presence** continues to grow, with our popular Indiana Native Plant Society Facebook group reaching 30,000 members and our Instagram account becoming more active with a 50% increase in followers.



Joe-pye weed by Lindsay Farley.



# Focus on Diversity, Equity, Inclusion

The DEI team took steps this year to reach new audiences with native plant education.

- ❁ Central Chapter provided native plants to The Chin Garden, Riverside High School, and Boulevard Place Food Pantry in Indianapolis to establish pollinator gardens.
- ❁ Multicultural Awareness training was made available for all INPS leaders.
- ❁ Mrs. Nino's Garden at El Campito in South Bend received grant funds to plant a native garden.
- ❁ The team collaborated with the Landscaping with Natives team to design and plant new garden beds at the Eiteljorg Museum in Indianapolis that featured native plants with cultural significance for Native Americans.
- ❁ A Book Club was created to read and discuss books that explore the intersection of nature and DEI issues.
- ❁ Karen LaMere, INPS member and descendant of the HoChunk Nation, gave a presentation on traditional uses of indigenous plants and animals.



*Lanceleaf coreopsis and friend by Brenten Reust.*

## South Central

Chapter Vice President Bill Daniels teamed up with the Monroe County CISMA organization (MC-IRIS) to offer hands-on training to build the ultimate seed-germination box, which provides a protected outdoor overwintering site for native plant seeds.

We hosted 8 hikes across the region. Hike leaders David Mow, Paul Rothrock, Cathy Meyer, and Nicolas Garza highlighted sedges and the state's smallest flower, terrestrial starwort (*Callitriche terrestris*), and were the first to report poke milkweed (*Asclepias exaltata*) growing in Lawrence County.

Five expert speakers delivered virtual presentations on topics ranging from landscaping with natives to "Ask a Naturalist."



*Attaching metal hardware cloth to the germination box to keep voles and mice away from the seeds.*

## Northeast

At a *Wake Up, Woods* book reading and hike at the new LC Nature Park in Roanoke, members enjoyed the brand new Education Center followed by a tour of the numerous spring ephemeral wildflowers, some of which were noted in the book reading.

More than sixty people toured the woods at Blue Fox Farms in Noble County and viewed the growing beds for Strand Nursery, a wholesale native plant nursery. Participants were treated to an herb tasting and refreshments.



*Northeast members enjoyed whorled milkweed in bloom at Strand Nursery. Photo by Robin Riley.*

# Chapter Highlights



*Newly planted native garden at the Eiteljorg Museum of American Indians and Western Art.*



*Southwest's native plant sale. Photo by John Mallery.*

## Central

We designed and installed new landscaping at the Eiteljorg Museum, showcasing Indiana native plants at a prominent downtown Indianapolis location.

We hosted 12 monthly virtual presentations on a variety of subjects from Bats of Indiana to Landscaping 101 for a Wildlife Friendly Garden, and we partnered with the Indianapolis Public Library System in a presentation on seed saving.

We conducted 5 seasonal hikes and hosted a table at the Earth Day Indiana Festival at Garfield Park in June, where we gave away 100s of native plant plugs to attendees.

## West Central

In May we participated in the first annual Native Plant Fest at Ross Camp, organized by the Tippecanoe County Soil and Water Conservation District.

In June and October, we collaborated with Sycamore Audubon Society for two West Lafayette Farmer's market plant sales.

In July, Susan Ulrich represented us at the Pollinator Palooza held in Prophetstown State Park.



*Shannon Stanis (WREC), Amber Slaughterbeck (SICIM), and Mickey Penrod (WC-INPS) evaluate and pull garlic mustard as part of the First Annual Native Plant Fest at Ross Camp. Photo by Patty Jones.*

## Southwest

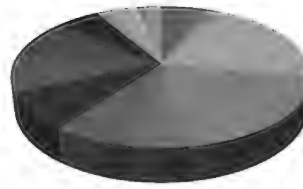
We had a successful native plant sale in May in Evansville. SW-INPS provided a diverse selection of grasses, forbs, and woody plants, and our chapter members worked one-on-one with customers to help them make the best selections for their own landscapes.

## Income



- Membership Dues
- Plant Sales
- Annual Conference
- Florathon
- T-Shirt Sales
- Grow IN Signs
- Letha's Fund
- Donations
- Wake Up Woods

## Expenses

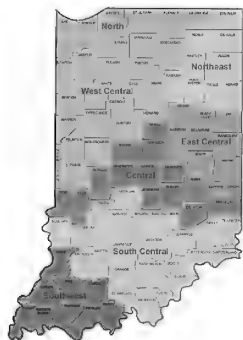
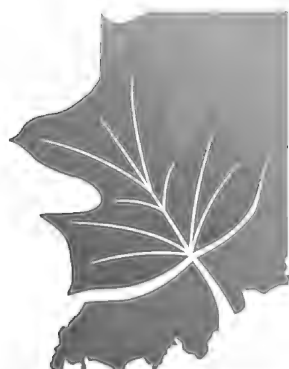


- Insurance
- Journal
- Plant Sales
- Donations
- Grow IN Signs
- Office Supp.
- Other
- Trip/Tours
- Meetings
- Membership
- Grants
- Conference
- Printing
- Website
- Outreach
- Paypal
- Technology

## Thanks to these donors who supported our work in 2021!

Karin Anderson	Wayne Coles & Susan Ebershoff-Coles	Glory Kulczycki & Art Hopkins	Barbara Miller	Phyllis Schwitzer
Anonymous	Rosemary Ervin	Meredith & Kathleen Hull	Elizabeth Mizell	Gregory Shaner
Kristi Armes	Michael Everidge	Joe Hyndman	Mary Martin Moffett	Mark Sheehan
Josh Armstrong	Jacqueline Fairfax	Ruth Ann Ingraham	Cindy Monnier	Christopher Short
Big Sue Arnold	Lou Feagans	International Women of Indiana	Morgan County SWCD	Marlene Sloat
Emily Avers	Mary Anna Feitler	Charla Ireland	Mark & Jackie Mow	Marietta Smith
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To teach people about their beauty, diversity, and importance to our environment.

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# Buffalo Grass

## By Howard Webb

Grass lawns and native planting do not usually come up in the same conversation, and for good reasons. Unlike non-native blue grass, fescue, and zoysia, Indiana native grasses tend to be tall and clumping and don't take well to regular mowing. The non-natives produce nice lawns, but require a lot of fertilizer, water, and maintenance.

If we are willing to loosen our definitions and requirements, there is a native alternative. Buffalo grass (*Bouteloua dactyloides*) is a North American, warm season grass from the High Plains that stretch from Canada to Mexico. This dense sod-forming species has been used as a turf grass since the 1930s. Today there exist numerous cultivars that are used for lawns and golf courses. Five years ago, only my native seed nursery carried buffalo grass; today you can order it through Amazon, Lowes, and Walmart.

Calling buffalo grass a native is somewhat a stretch for Indiana; it is best thought of as a near native. An herbarium search (<https://midwestherbaria.org/>), turned up only one observation, a 2008 collection by Paul Rothrock from an I-65 rest area north of Lafayette, Indiana. Given its location and the lack of any earlier observations, it may have hitch-hiked its way there via the highway.

Being a warm season grass, buffalo grass endures hot summers better than the cool season non-natives. When the latter struggle, buffalo grass thrives. The downside is that it is slow to 'green up' in the spring and goes dormant early in the fall. Being a drought tolerant grass, it never seems to be as green as many lawns, and always looks a bit brown in comparison (my wife says it looks a lot like zoysia). This species of shortgrass prairies does best in full sun and does not do well in shade or wet conditions.

Buffalo grass is easy to start and to maintain. I began by killing off all the existing vegetation. Then, in early May when the soil was warm (above 55 °F), I loosened the soil and spread the seed (about 2-3 pounds per 1,000 sq ft). I then raked it in and spread some loose soil over it, covering the seed with ¼ to ½ inch of soil. Then I walked over the area to press the seed in and watered it for the next 10 days. After that, leave it alone. Mowing is optional. To keep the family happy, I do a 6-inch-high mowing about once a

month. This controls the few weeds.

When in flower and fruit the grass reaches to about 5 inches. While it produces a bur-like cluster of seeds, local spread is more often by branching stolons.

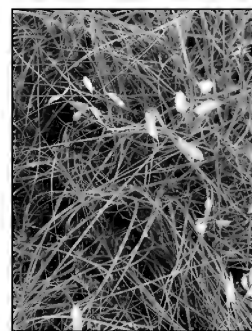
An advantage of a warm season grass is that it goes dormant in early fall when most local weeds and undesirables are still growing. This means I can spot spray herbicide even into warm days of early December, killing the weeds without hurting the buffalo grass. I leave it alone in the spring, as I have scattered crocus bulbs in the turf that pop up early.

I am not suggesting that buffalo grass be added to local prairie seed-mixes. And even if introduced I am not sure how well it would compete with other tallgrass prairie species. But I would argue for its use in a slightly broader context as a low maintenance lawn, or as a semi-formal border next to a more wild prairie planting. Before I moved to Bloomington and planted my front yard prairie, I was at a conference where a botanist for the Shaw Arboretum said that it was best to have a tidy border in front of prairie plantings – it tends to keep the neighbors happy. Rather than having tall unruly natives reaching out to grab people on a sidewalk, I planted a 3-to-6 foot border between the walk and my prairie to make the planting look more intentional. The border is clearly not a formal lawn, and yet it gives a sense of deliberate order to the landscape.

Although buffalo grass has yet to be a common landscape plant in Indiana, my experience suggests it worthy of greater attention.

Howard Webb, a retired resident of Bloomington, is a member of the South Central Chapter of INPS and loves to share his prairie planting experiences with neighbors, church, and fellow INPS members.

*Buffalo grass flowers in June. Its fine leaves and inflorescence reach a height of about 6".*



Howard Webb



*The author's home, seen in summer, has a sinkhole planted with tallgrass prairie species and bordered by buffalo grass (seen in the foreground).*

# Leaves

## By Fred Wooley

If you love green, you must love the month of June. Sure, the greens of early spring are special. The new, bright, fresh greens of April are welcomed after a long winter. The month of May greens fill in bare spots and close forest canopies.

As grasses emerge and rise tall, their colors evolve into a spectrum of greens. We notice them in June. Hay fields get our attention on country drives. Though a monoculture of one main species, their dark blades wave in slight breezes in a vast green of pastoral gentleness.

And yes, we get home and notice our green yard grass getting long and needing a trim. I hold off mowing as long as I can in the spring, because once I begin, it seems the more often I mow.

As yard grass grows, it too fills in and begins to send up flower stalks. We don't notice them so much because we cut them as they grow. Those that are missed along fences or edges of groomed spaces, bolt, flower, and go to seed. With rains, longer days, more sun, grasses excel and become the most robust. Our mowers labor. My Dad would refer to it in kind of a bark "that tough June grass," as if it were a separate, special species. I smile now, every June thinking of

Dad walking back and forth across the yard cutting "that tough June" grass.

I don't mind working outside, love it actually, but there are many things I would rather do than mow grass. Some people love it. We see enormous yards out in the country where homeowners participate in what my friend Kip calls "recreational mowing." My friend Amy is one. Don't even think about hopping on her John Deere. With a smile, she says, "I love to mow."

Part of it is the satisfaction of seeing the big job done. Neat and crisp, groomed is good.

Personally though, I like a little rough uniqueness to the lawn. On our Steuben County farm I've surrounded the home as much as practical with native prairie grasses. We have several species and intermixed them with native sedges and wildflowers, accented with native shrubs and trees. It is a look that suits the Wooley home well.

Native grasses have different visages. They vary by shades of green and width of blades. Some are clumps, some more individual and separated. Some are short and delicate; some are tall and robust. Grass flower and seed heads, I think, rival the beauty of many more showy flowers. Certainly smaller, but in clusters they can be quite striking. Indian grass (*Sorghastrum nutans*) has a large feather-like plume of golden-bronze come late summer. Big bluestem (*Andropogon gerardii*)



Grasses of Wooley  
Monarch Meadow

### Prairie Grass Quiz:

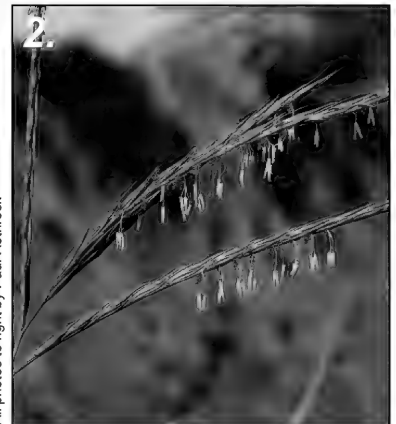
Each of these species  
is mentioned in Fred  
Wooley's article. Can  
you identify them?

Answers on page 17.



Max Licher (from midwestherbaria.org)

Often has glaucous (i.e., gray-green) foliage and grows in tufts to about 3 ft (1 m) tall.



All photos to right by Paul Rothrock

A clump forming species that, under good conditions, can attain a height of 9 ft (3 m) when in flower; the nodes are richly colored.

# of Grass

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sports a seed head of three to four stalks giving it a turkey track look and the easy nickname of turkey grass.

Take a close look at side oats grama (*Bouteloua curtipendula*) when in flower. Its tiny reddish anthers are especially beautiful in the early morning, sunlit dew. As their name implies, the numerous grass spikelets are arranged along one side and droop gracefully along arching, thin stems.

Prairie dropseed (*Sporobolus heterolepis*) grows in low globe-shaped clumps and sends up the most delicate spreading inflorescence with a spray of tiny flowers. Some say, and I agree, this grass gives off the enticing aroma of hot buttered popcorn when going to seed.

And let's not forget the little bluestem (*Schizachyrium scoparium*), which grows to waist height and displays somewhat fluffy, slightly arched spikes in late summer and a lovely gray-green foliage all summer long.

These grasses are perfect for cultivated landscapes for many reasons. First, they are native and reflect the rich natural heritage of our region. They are easy to grow since they are adapted for Indiana soils and climate. They are perennial and tough. During droughts, our non-native yard grasses turn yellow unless drenched with water from wells and pipes at our expense. Native grasses send roots deep in search of water

and find enough to remain luxuriant.

Homeowners and entire towns and municipalities are realizing the benefits of native grasses. In street medians in both downtown Angola and leading into Fort Wayne, are rows of prairie dropseed. This species provides a perfect low-growing ground cover.

A row of prairie dropseed at the edge of a home flower bed makes the perfect transition from mowed lawn to a wilder plant display. Some municipalities may frown on a totally wild looking lawn, but islands of wild plants with these neat, native, shortgrass selections can provide refugia of bird and butterfly friendly, loving beauty.

Like prairie dropseed, little bluestem also may be employed as a transition species or even in drifts to accent foundation plantings or perennial borders.

The next time you park the mower, take time to look around your yard. See where you can make it look a little more inviting. Remember the words of Walt Whitman (from *Leaves of Grass*) ... *a leaf of grass is no less than the journey-work of the stars.*

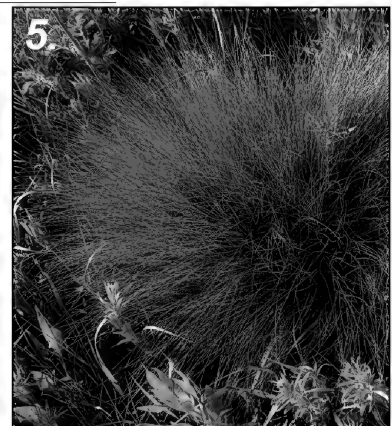
*Fred Wooley is a naturalist, writer, and land preservation/restoration enthusiast. He lives on part of an old farm overlooking an extensive fen in northern Steuben County. He can be reached at [twooley@frontier.com](mailto:twooley@frontier.com). A version of this article first appeared in the June, 2021 KPC News Outdoor Page.*



3. Forms loose clumps that can grow to 6 ft. (2 m) tall; has prominent, stiff auricles at the base of its leaf blades.



4. A variable species vegetatively, ranging from tufted to loosely rhizomatous and from 1 to 3 ft (up to 1 m) tall; it can tolerate rather dry conditions.



5. Has long, narrow leaves and lovely growth form; it reaches to about 2 ft (0.7 m) tall.

## Book Review:

# “Wildflowers of the Indiana Dunes National Park” by Nathanael Pilla and Scott Namestnik

### Reviewed by Esteban Coria

When I heard that two of the most highly regarded botanists in the Midwest were co-authoring a book on botany, I was extremely eager to add it to my library. At the time, I was primarily looking forward to having a new field guide to add to my collection and aid me on my dune hikes. However, I realized after purchasing

*Wildflowers of the Indiana Dunes National Park*, that the book I was holding was unlike any other floristic guide I'd ever seen. The depth of knowledge and passion for botany that the authors possess is evident as you read their masterful woven work of botanical art. This book, a must-have for your home library, should be considered an essential canon of North American botany.

Upon encountering a new plant, I want to know everything there is to know about that plant. I study its morphology and note its habitat, location, and date of observation. I learn the botanical family it belongs to and glance at its scientific name, at which point I do my best to memorize the semi-intelligible amalgamation of Latin, Greek, and botanist names that comprise it. I'm curious as to why it grows where it does and what fauna interact with it. This book satisfies my basic knowledge quest. And if you'd like

to know where to see a vibrant sea of wild lupine, or understand how a cactus made its way to the dunes, or are curious how a mythological mountain nymph is relevant to botany, you will find answers to these questions as well.

The text is organized into the following five sections: *Introduction*, *Brief History*, *Using This Guide*, *Plant Communities of the Indiana Dunes*, and plant treatments presented by flower color (*White Cream and Green Flowers*; *Yellow Flowers*; *Orange Flowers*; *Red Flowers*; *Pink*, *Lavender*, and *Magenta*

*Flowers*; and *Violet and Blue Flowers*).

The “Introduction” explains what the book is, “it was our intention to not only make a wildflower book for the casual hiker but also to offer some useful information for the experienced botanist.” Pilla and Namestnik have accomplished precisely that. Not only is this book accessible to everyone, but even highly trained botanists would benefit from this book and find it a useful and enjoyable companion.

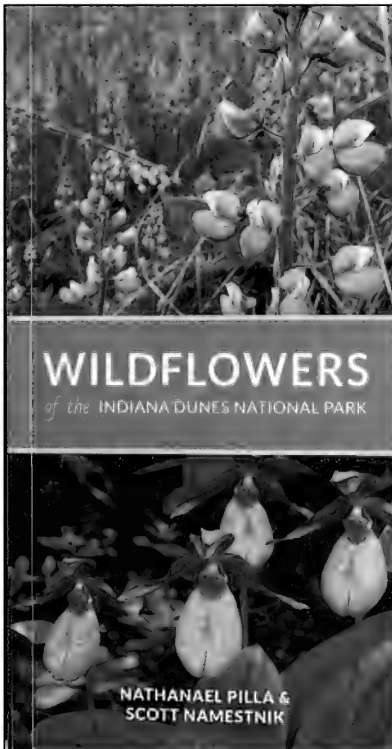
“Brief History” provides an excellent overview of the history of the Indiana Dunes. Without revealing too much, suffice it to say I will never purchase another glass jar made by Ball Corporation. (Buy the book to find out why.)

“Plant Communities” is based upon the work by renowned botanist Noel Pavlovic and offers readers a well-written overview of the diverse remnant ecological habitats that the Indiana Dunes National Park has to offer. These include eighteen wetland and terrestrial communities that range from submerged aquatic, bog, and prairie fen to pin oak flatwoods, foredune, savanna complex, and mesophytic forest.

The plant treatments make up the bulk of the text. These are organized into user-friendly intuitive segments based on color of plant inflorescences. The format of the treatments is outlined in “Using This Guide,” and makes this book outstanding! It also includes many beautiful photographs by Michael Huft (an outstanding professional botanist and member of INPS North Chapter) and the late Keith Board which serve as excellent visual aids.

“Using This Guide” explains how to understand the body of this text and highlights what makes this book so unique: “For each species treated in this guide, we include the following information: botanical name, common name, family name (technical and common), at least one photograph, a brief description of the plant, bloom time, plant communities... something fun or special about the plant (because every plant has its own special story!), etymology, and information on any look-

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# “Wake Up, Woods” Continues in the News

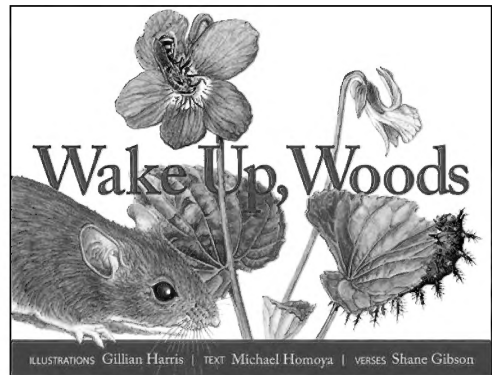
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*alike species ...*” Again, this is what makes this book a standout. Every plant treated includes an explanation of the origins of the taxonomic label (etymology), plants that resemble it to prevent misidentification, and interesting facts about the plant. The ‘something special and fun’ section is supplemental knowledge that includes information such as history, folklore, and even how specific cultures utilized the plant historically (ethnobotany). Thus, it provides all the information you typically find in a well-written floristic guide, and so much more! It’s a wealth of knowledge with informational gems at every corner.

Essentially, Pilla and Namestnik have created remarkable botanical literature, a superbly written and captivating resource.

*Esteban Coria teaches Spanish at grade levels varying from elementary through college. He is President of the North Chapter of INPS and moderator for the INPS Facebook page.*

*Wake Up, Woods* is the award-winning, widely-acclaimed book inspired and created by members of INPS. Now it has gained further visibility by being included in National Public Radio’s summer book picks for all 50 states (<https://www.npr.org/2022/05/13/1098827190/what-to-read-summer-travel>). *Wake Up, Woods*, published in 2019, focuses on our treasured, springtime ephemerals along with their pollinators and the creatures that assist in seed dispersal. Geared toward young children, its beauty, poetry and botanical information is timeless and is enjoyed throughout the year by people of all ages. The book is available online and in bookstores. And, of course, it may be purchased at the INPS annual conference in October. 🍂



## Answers to Prairie Grass Quiz from page 15:

1. *Schizachyrium scoparium*
2. *Andropogon gerardii*
3. *Sorghastrum nutans*
4. *Bouteloua curtipendula*
5. *Sporobolus heterolepis*

*Save the Date!*  
**2022 INPS Annual Conference:**  
**October 22**  
**at the 502 Event Center in**  
**Carmel**

# Some Plant Adaptations to Fire

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## By Paul Rothrock

For those of us who grew up in the 1950s and 1960s, we remember Smokey Bear public service announcements that loudly proclaimed, "Only you can prevent forest fires!" These ads were replete with admonitions that forest fires take away habitat for animals, reduce the availability of timber for construction, and compromise fresh water supplies. Fifty years later we realized that these efforts at fire suppression came with undesirable consequences. Most notably in the recent news is that it made western US forests prone to deeply destructive, raging fires that can wipe out entire towns.

In the 1960s active ecological research revealed that prescribed fires could provide a much-needed habitat management tool in ecosystems with a history of frequent fires, such as prairies and oak savannas. By 2001, Smokey had changed his line ever so slightly but critically to "Only you can prevent *wildfires*!" [emphasis mine]

In our western Indiana transition zone between the eastern deciduous forest and tallgrass prairie, fire was of particular importance historically. Hoosier Prairie Nature Preserve (discussed in the accompanying article by John Bacone), a complex of mesic and wet prairie mixed with black oak savanna, represents an excellent example. Oak savanna communities without fire turn into dense oak woods and lose their historical plant diversity.

This begs the question "how do the plant species found in prairies, oak savannas, and other fire prone habitats adapt to this potentially destructive force?" Some adaptations are likely familiar due to their fame. Jack pine (*Pinus banksiana*), a species that thrives in the Indiana Dunes area, houses its seeds in tight cones that only open after exposure to the heat of fire. Thus, after a fire passes, it disperses its seeds on an open site with fresh ash that provides appropriate conditions for germination and rapid seedling growth. But many adaptations are more subtle and perhaps only offer degrees of protection. Let us give some focus to oaks (genus *Quercus*) since these trees are often associated with fire prone habitats such as savannas.

A tree's most obvious structural adaptation to fire is the thickness of its bark. Thick bark insulates the sensitive cambium layer from heat. Thin bark trees such as American beech (*Fagus grandifolia*) and flowering dogwood (*Cornus florida*) readily succumb to forest fire. Among oaks, red oak

tends to have a thinner bark while more resistant species such as black, bur, and chestnut oaks (*Quercus velutina*, *Q. macrocarpa*, and *Q. montana* respectively) have thick bark. Furthermore, this thick bark develops early in the life of the tree. Some trees can attain a thick bark, (e.g., tulip (*Liriodendron tulipifera*) and cottonwood (*Populus deltoides*)) but may take longer to get to that stage and as a result are less adapted to fire.

Even the seed behavior of oak influences its fire tolerance. It begins with mammals that bury seeds thus avoiding the surface temperatures reaching up to 325 °F (163 °C) during a fire. Upon germination oaks retain their cotyledon in the soil (a pattern known as hypogeal germination) where it is less vulnerable to fire. Many tree species (e.g., maples (*Acer*)) display their cotyledons above ground (epigeal germination) which makes them prone to destruction by even a small ground fire. The hypogeal species have one more advantage: they quickly form a root collar that can generate numerous buds. These buds form a "bud bank" that resprouts if fire top-kills the oak. One result in savannas with a long history of repeated fires is that these trees will develop massive woody oak grubs in the soil, a testament to their resilience to repeated fires.

Finally, one should not ignore the healing adaptations of oaks. Walking through an oak savanna one will observe many fire scarred individuals. Species that do best in a fire prone habitat (such as bur oak) rapidly compartmentalize wounds which prevents the spread of decay through the trunk of the tree. They do this more readily than maples, tulip trees, and even hickory (*Carya*).

These are but a few of the ways that plants cope with fire. None are fully fool proof, especially if the frequency or kind of fire that the species must cope with changes. But they do serve certain oak species well in Indiana's more fire prone ecosystems.

### Further Reading

Brose, P.H., D.C. Dey & T.A. Waldrop. 2014. The fire-oak literature of eastern North America: synthesis and guidelines. General Technical Report NRS-135. Northern Research Station, US Forest Service. 98 pp.

Paul Rothrock co-authored a paper, with John Bacone as senior author, in 2007 on the long-term response of Hoosier Prairie to prescribed fire. It may be found via a Google search of "Michigan Botanist Bacone."

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## Burn — continued from page 20

definitely go in their direction. Another popular road, Kennedy Avenue, was the boundary on the west side. There was a “floating-dome oil tank farm” on the south boundary, which contained large tank structures containing highly flammable petroleum products. For some reason they made it clear they did not want fires set on days with winds from the north. There was also a small neighborhood that was an inholding on the preserve’s west side. And finally, there was an old unofficial “town dump” located within the prairie, north of Main Street.

Working with FHQ, prairie experts from nearby states, and the USFS, a burn plan took shape. The plan was to burn most of the prairie north of Main Street. Staff from the EMB visited the site and advised they would only provide a permit if the refuse in the dump was moved to the east of the lane leading from Main Street to the dump. Ron Campbell, Ron’s wife and two children, and I spent several days moving the trash, and upon a revisit, EMB issued a permit. NIPSCO agreed to mow wide lanes under the high line and around their substation, securing those properties. The town of Griffith mowed the lane leading from Main Street to the dump and connecting to the railroad tracks, and mowed a lane next to a small ditch, making a small burn block.

The burn plan called for winds from the west-southwest, at speeds less than 15 mph measured at eye level. The plan was for FHQ staff to wet the control lanes, burn out secure “black zones” next to the mowed and wetted lanes, and then to string fire through the blocks, starting on the east and north edges, eventually burning all the prairie north of Main Street and west of the dump lane.

Press releases alerted the local area as to the plan, and meetings were held in the three municipalities. To our delight the towns of Highland, Griffith, and Schererville were pleased that DNR was conducting the burn, as they knew it would be carried out under safe conditions. In the past, local kids would set fires on dry, high-wind days, endangering people and property, and the Volunteer Fire Departments would battle the ad hoc blazes.

The Fall of 1978 provided perfect weather for the burn. A killing frost ensured the vegetation was cured and receptive for firing. On October 24th, FHQ brought up a crew of six (this was all the fire

qualified personnel available), Nature Preserves had a crew of three, and NIPSCO and USFS provided a few others. FHQ also brought up a large tanker truck (a refurbished WWII deuce-and-a-half), which they filled with water from a fire hydrant. This large piece of fire equipment had to be transported from Martinsville to Hoosier Prairie on a heavy transport vehicle, adding to the logistical complexity. Local police and a local Civil Air Patrol controlled traffic on Main Street as needed. The FHQ crew wet down the lane with water from the pumper truck and started fire immediately adjacent to it. After the first unit, from the ditch to the dump lane, was successfully burned, the crew wet down the lane south of the high line and substation and started stringing fire. Eventually the entire portion of Hoosier Prairie was burned as planned, approximately 100 acres. Everyone was relieved that the months of planning and meetings had resulted in success!

In the years since, additions were acquired, and Hoosier Prairie is now nearly 580 acres in size. Prescribed burning continues, but it is even more difficult, as the Preserve is now totally ringed by subdivisions and small businesses. Over the decades, the Division of Nature Preserves has increased the staff and equipment available for conducting prescribed burns. At the same time, the portfolio of nature preserves contains many additional properties in need of prescribed fire: fens, prairies, glades, savannas, flatwoods, and oak woodlands. DNP staff and partners, with continuing help from FHQ and land trusts, continue to conduct successful burns of these places, some of landscape size — all part of the Division of Nature Preserves mission “to identify, protect and manage an array of nature preserves and natural areas in sufficient numbers and sufficient sizes to maintain viable examples of all of Indiana’s natural communities.”

*John Bacone served with Indiana DNR Division of Nature Preserves for 41 years and was Director from 1980 until his retirement in 2019. He is a member of INPS Central Chapter.*



Tom Post

*Hoosier Prairie, October 24, 1978, marks the beginnings of prescribed fire management in Indiana.*



## Indiana Native Plant Society

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# Indiana's First Prescribed Burn — the Making of Conservation History

*By John Bacone*

The Indiana DNR Division of Nature Preserves acquired Hoosier Prairie, Indiana's first prairie nature preserve, in 1976. It was also the most expensive nature preserve to-date, nearly \$1 million for 300 acres. Traditionally, nature preserves had been "hands off" places, in terms of management. Nature Preserves were fenced, had their boundaries signed, and had a parking lot and trail installed if appropriate. It had been assumed that once a site was protected, the mission had been accomplished. Fires, timber management, trash dumping, farming, and active recreation were not allowed.

The story needed revision when it came to Hoosier Prairie, a complex of fire-dependent natural communities. The slightly rolling landscape hosts black and white oak sand savannas on the higher ground, sand prairies on the slightly lower slopes, and wet prairie and marshes in the swales, on mucky soils. Shrub thickets of willows (*Salix* spp.), chokeberries (*Aronia* spp.), sumac (*Rhus* spp.), aspen (*Populus tremuloides*), and sassafras (*Sassafras albidum*) are scattered throughout. Without periodic fire, shrubs would quickly take over and snuff out the prairie wildflowers.

Realizing that prescribed fire would be necessary to keep the savannas and prairies open, and knowing that the Division of Nature Preserves had only three full-time staff and no equipment, Division

Director Jim Keith asked for assistance from the Division of Forestry's Fire Headquarters (FHQ), which specialized in wildland fire suppression. They consulted with the US Forest Service (USFS) and natural resource specialists from other states and started putting together a burn plan. This would be Indiana's first prescribed burn.

Hoosier Prairie was and still is a complicated site to burn. It is within the corporate limits of three towns: Highland, Griffith, and Schererville, requiring careful coordination and communication (in those days the only direct line of communication was via land-line phone) with police and fire departments from all three towns. Since northwest Indiana was in non-attainment for air quality, permission from the Environmental Management Board (EMB), the predecessor of the Indiana Department of Environmental Management (IDEM), was also required. And burning was further complicated by the setting of Hoosier Prairie. It was bounded on the north by a heavily used freight railroad and by Northern Indiana Public Service Company (NIPSCO) high line electrical transmission lines. NIPSCO also had a substation in the northwest corner. Main Street, a high-speed thoroughway, bisects the Prairie. A small subdivision bordered on the east, and smoke from the fire would

*Burn — continued on page 19*



Steve Creech

*Part of the first burn crew. Front row: NIPSCO representative, Ron Campbell, John Bacone (both with Division of Nature Preserves), Rick Riester (YACC). Back row: Irene Herlocker, George Bergner (Civil Defense), Bill Willsey, Bart Bales, Marty Western (all with Fire Headquarters).*